

III. Remarks

Claims 1-4, 6, 7, 9-18, 20, 24-26, and 29-34 were previously pending, of which claim 1 has been amended. Claims 6, 10, 12, 13, 20, 27, and 28 were previously withdrawn from consideration. Claims 6, 10, 12, 13, 20, 27, and 28 are canceled by the present paper without prejudice to or disclaimer of the subject matter therein. New claims 35-39 have been added. Reconsideration of presently pending claims 1-4, 7, 9, 11, 14-18, 24-26, and 29-39 is respectfully requested in light of the above amendments and the following remarks.

§112 Rejections

Claims 1-4, 9, 11, 14-18, 24-26, and 29-34 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Office Action noted that the limitation reciting “the convex outer portion having a fifth radius of curvature substantially similar to or larger than the first radius of curvature,” was not found in the specification. This rejection is respectfully traversed, for the following reasons.

As pointed out in MPEP §2163.02:

The subject matter of the claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement.

For example, the written description requirement is met where the claimed subject matter is disclosed in the drawings rather than in the written specification. In this regard, MPEP §2163(II)(A)(3)(a) explains that:

Possession [of the invention] may be shown in many ways. For example, possession may be shown by describing an actual reduction to practice of the claimed invention. Possession may also be shown by a clear depiction of the invention in detailed drawings . . . which permit a person skilled in the art to clearly recognize that applicant had possession of the claimed invention. . . .

An applicant may show possession of an invention by disclosure of drawings or structural chemical formulas that are sufficiently detailed to show that applicant was in possession of the claimed invention as a whole. See, e.g., *Vas-Cath*, 935 F.2d at 1565, 19 USPQ2d at 1118 (“drawings alone may provide a ‘written description’ of an invention as required by Sec. 112\”); *In re Wolfensperger*, 302 F.2d 950, 133 USPQ 537 (CCPA 1962) (the

drawings of applicant's specification provided sufficient written descriptive support for the claim limitation at issue); . . .

Consequently, even though the detailed description specification of the present application does not contain the phrase "a fifth radius of curvature substantially similar to or larger than the first radius of curvature," it is respectfully submitted that the present application does in fact include a proper written description of this subject matter, because the drawings of the present application disclose at least one embodiment that supports this particular claim language. In that regard, Applicants would at least point to Figs. 5 and 6—illustrating a "substantially similar" radius of curvature—and Figs. 7 and 8—illustrating a "larger" radius of curvature—as supporting the recited claim language. Fig. 5 is reproduced below in modified form to better illustrate the substantially similar radii of curvature. Fig. 7 is reproduced below in original form. Accordingly, Applicants request that the §112, first paragraph rejection of claims 1-4, 9, 11, 14-18, 24-26, and 29-34 be withdrawn.

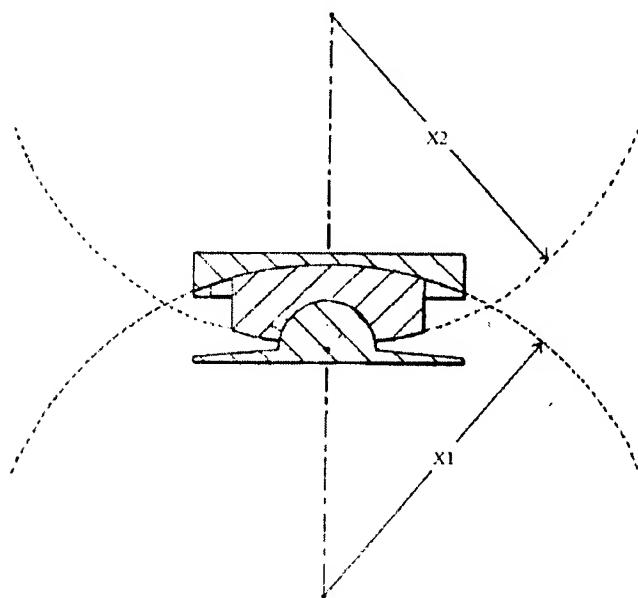


Fig. 5

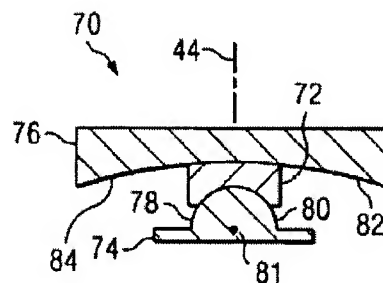


Fig. 7

§102 Rejections

Claims 1, 7, 9, 14-17, 24, 25, 29, 30, 33, and 34 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0082701 to Zdeblick et al. ("the Zdeblick application").

The PTO provides in MPEP § 2131 that

“[t]o anticipate a claim, the reference must teach every element of the claim....”

Therefore, to sustain the rejection of these claims the Zdeblick application must teach all of the claimed elements of each claim. However, the Zdeblick application does not appear to disclose all of the claimed elements of independent claim 1 and, therefore, its dependent claims 7, 9, 14-17, 24, 25, 29, 30, 33, and 34.

In particular, the Zdeblick application does not appear to teach, “the first member comprising a first surface with a first curve defining a concave recess, the first curve having a first radius of curvature; ... the second member comprising a second surface with a second curve defining a convex projection, the second curve having a second radius of curvature smaller than the first radius of curvature,” as recited. Instead, the concave recess and the convex projection—as indicated by the Examiner’s modification of Fig. 16 of the Zdeblick application—appear to have similar radii of curvature. If there is any difference between the radii, it appears that the convex projection may have a slightly larger radius of curvature than the concave recess, contrary to the requirements of claim 1. Accordingly, for at least these reasons the Zdeblick application fails to teach all of the recited elements of independent claim 1. Claims 7, 9, 14-17, 24, 25, 29, 30, 33, and 34 depend from and further limit claim 1. Applicants would also point out that claims 33 and 34 depend from and further limit claims 31 and 32 that do not stand rejected under §102(b) as being anticipated by the Zdeblick application. Therefore, Applicants respectfully request that the §102(b) rejection of claims 1, 7, 9, 14-17, 24, 25, 29, 30, 33, and 34 over the Zdeblick application be withdrawn.

New Claims

New claims 35-39 have been added. Claims 35-39 appear to be patentable over the cited references as these claims recite combinations of features not disclosed in the cited references.

For example, independent claim 35 recites:

An intervertebral implant comprising:
a first member for engaging a first vertebra, the first member comprising a concave first surface, the concave first surface having a first radius of curvature;

a second member for engaging a second vertebra, the second member comprising a convex second surface and a tapered surface extending outwardly from the convex second surface, the convex second surface having a second radius of curvature, the second radius of curvature being smaller than the first radius of curvature; and

a center member adapted for placement at least partially between the first member and the second member, the center member comprising:

a convex third surface for articulating with the concave first surface of the first member, the third surface having a third radius of curvature substantially similar to the first radius of curvature,

a concave fourth surface for articulating with the convex second surface of the second member, the concave fourth surface having a fourth radius of curvature substantially similar to the second radius of curvature,

a convex fifth surface extending substantially around the concave fourth surface, the convex fifth surface having a fifth radius of curvature substantially equal to the first radius of curvature, the convex fifth surface configured for articulating with the tapered surface of the second member, and

a sidewall extending between the convex third surface and the convex fifth surface, the sidewall having a substantially circular outer profile.

Claims 36-38 depend from and further limit independent claim 35.

Independent claim 39 recites:

An implant for positioning between a first vertebra and a second vertebra, the implant comprising:

a first member having a first upper surface for engaging the first vertebra and a first lower surface, the first lower surface comprising a concave first portion having a first radius of curvature;

a second member having a second lower surface for engaging the second vertebra and a second upper surface, the second upper surface comprising a convex second portion having a second radius of curvature, the second radius of curvature being smaller than the first radius of curvature; and

a third member positioned at least partially between the first and second members, the third member comprising:

a third upper surface comprising a convex portion for articulating with the concave first portion of the first member, the convex portion of the third upper surface

having a third radius of curvature substantially similar to the first radius of curvature,
a third lower surface comprising:
a concave central portion for articulating with the convex second portion of the second member, the concave central portion having a fourth radius of curvature substantially similar to the second radius of curvature,
a convex outer portion surrounding the concave central portion, the convex outer portion having a fifth radius of curvature substantially equal to the first radius of curvature, and
a sidewall extending between the third upper surface and the convex outer portion of the third lower surface, the sidewall being substantially cylindrical.

Accordingly, Applicants request an early indication of allowance for new claims 35-39.

IV. Conclusion

It is believed that all matters set forth in the Office Action have been addressed and that all of the pending claims 1-4, 7, 9, 11, 14-18, 24-26, and 29-39 are in condition for allowance. Should the Examiner deem that any further amendment is necessary to place this application in condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number noted below.


Respectfully submitted,



Gregory P. Webb
Registration No. 59,859

Date: October 30, 2007
HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: 972-739-8641
Facsimile: 214-200-0853

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Gayle Conner